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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/435,154	11/08/1999	SHUNPEI YAMAZAKI	SEL142	4834

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EXAMINER	
LOKE, STEVEN HO YIN	

ART UNIT	PAPER NUMBER
2811	

DATE MAILED: 04/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/435,154	YAMAZAKI ET AL.	
	Examiner	Art Unit	
	Steven Loke	2811	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-9,11,12,14-17,19-22,24 and 25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-4,6-9,14-17 and 19-22* is/are allowed.

6)☒ Claim(s) *11,12,24 and 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/9/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claim 24 is objected to because of the following informalities: line 11, the phrase "fourth gate electrode" is unclear whether it is being referred to "a fourth gate electrode". Appropriate correction is required.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyasaka et al.

In regards to claim 11, Miyasaka et al. disclose a liquid crystal display device having an n-channel TFT and a p-channel TFT over a substrate in figs. 26, 49A, and 49B. It comprises: an n-channel TFT comprising: a first gate electrode (a lower middle portion of the gate electrode formed over the channel region [2]) and a second gate electrode (the side and top portions of the gate electrode that overlaps the regions [9]) formed adjacent to a first semiconductor layer with a first gate insulating film [5] interposed therebetween, the first semiconductor layer comprising a first channel formation region [2], a pair of LDD regions [9] and first source and drain regions [3]; wherein the second gate electrode partially overlaps the pair of LDD regions [9] while the first gate electrode does not overlap the pair of LDD regions; and the p-channel TFT comprising: a third gate electrode [6] (a lower middle portion of the gate electrode [6] formed over the channel region) and a fourth gate electrode [6] (the side and top portions of the gate electrode [6] that overlaps the source and drain regions [4, 10])

formed adjacent to a second semiconductor layer with a second gate insulating film interposed therebetween, the second semiconductor layer comprising a second channel formation region and second source and drain regions [4, 10] being in contact with the second channel formation region, wherein the fourth gate electrode [6] partially overlaps the second source and drain regions [4, 10] while the third gate electrode does not overlap the second source and drain regions [4, 10], and a wiring [8] is connected to at least one of the second source and drain regions [4, 10].

Miyasaka et al. differ from the claimed invention by not showing the liquid crystal is ferroelectric liquid crystal. It would have been obvious for the liquid crystal is ferroelectric liquid crystal, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. In re Leshin, 125 USPQ 416.

In regards to claim 12, Miyasaka et al. differ from the claimed invention by not showing the first to fourth gate electrodes comprise a material selected from the group consisting of titanium, tantalum, tungsten and molybdenum. It would have been obvious for the first to fourth gate electrodes comprise a material selected from the group consisting of titanium, tantalum, tungsten and molybdenum, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. In re Leshin, 125 USPQ 416.

4. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyasaka et al. as set forth in the rejection of claim 11, further in view of Johnson.

In regards to claim 24, Miyasaka et al. further differ from the claimed invention by not showing the CMOS circuit is used in a goggle type display device.

Johnson shows a goggle type LCD display device having a control circuitry and a display screen [12] in figs. 1 and 2.

Since Miyasaka et al. and Johnson teach a LCD device with control circuitry, it would have been obvious to have the CMOS circuit of Miyasaka et al. in the control circuit of Johnson because it increases the speed of the device.

In regards to claim 25, Miyasaka et al. differ from the claimed invention by not showing the first to fourth gate electrodes comprise a material selected from the group consisting of titanium, tantalum, tungsten and molybdenum. It would have been obvious for the first to fourth gate electrodes comprise a material selected from the group consisting of titanium, tantalum, tungsten and molybdenum, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. In re Leshin, 125 USPQ 416.

5. Applicant's arguments filed 4/9/04 have been fully considered but they are not persuasive.

It is urged, in pages 12-13 of the remarks, that Miyasaka et al. never discloses an n-channel TFT comprises first and second gate electrodes in which the second gate electrode partially overlaps LDD regions while the first gate electrode does not overlap the LDD regions, and that a p-channel TFT comprises third and fourth gate electrodes in which the fourth gate electrode partially overlaps source and drain regions while the third gate electrode does not overlap the source and drain regions. However, Miyasaka

et al. does show an n-channel TFT comprises a first gate electrode (a lower middle portion of the gate electrode formed over the channel region [2]) and a second gate electrode (the side and top portions of the gate electrode that overlaps the regions [9]) in which the second gate electrode partially overlaps LDD regions while the first gate electrode does not overlap the LDD regions, and that a p-channel TFT comprises a third gate electrode (a lower middle portion of the gate electrode [6] formed over the channel region) and a fourth gate electrode [6] (the side and top portions of the gate electrode [6] that overlaps the source and drain regions [4, 10]) in which the fourth gate electrode partially overlaps source and drain regions while the third gate electrode does not overlap the source and drain regions. It is believed that claims 11 and 12 are still unpatentable over Miyasaka et al. and claims 24-25 are still unpatentable over Miyasaka et al. in view of Johnson.

6. Claims 1-4, 6-9, 14-17 and 19-22 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Loke whose telephone number is (571) 272-1657. The examiner can normally be reached on 7:50 am to 5:20 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (571) 272-1732. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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April 23, 2004

Steven Loke
Primary Examiner